

Biological and Phytochemical Evaluation of *Cotoneaster microphyllus*, *Ficus auriculata* and *Calotropis procera*

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SUMMARY. In this study, selected medicinal plants were evaluated for their phytochemical composition and biological potentials. The total phenolic and polyphenolic contents were determined by Follin Ciocalteu reagent method. HPLC analysis was used for the identification and quantification of phenolic antioxidants. The total phenolic acid contents were found to be 5.95, 5.75, and 5.76 mg/g while total polyphenolic contents were 5.19, 6.14, and 6.2 mg/g, in *Cotoneaster microphyllus*, *Ficus auriculata* and *Calotropis procera*, respectively. The presence of gallic acid, vitamin C and quercetin with concentrations 0.053, 14.10 and 0.59 mg/100 g, respectively, were confirmed in *Cotoneaster microphyllus* through HPLC. In *Ficus auriculata*, quercetin and epigallocatechin with concentrations; 3.79 and 4.64 mg/100 g, respectively while in *Calotropis procera* malic acid, chlorogenic acid, ellagic acid, catechin hydrates, and rutin with concentrations of 0.05, 0.11, 0.04, 1.15, and 0.28 mg/100 g, respectively, were confirmed through HPLC analysis.

RESUMEN. En este estudio, las plantas medicinales seleccionadas fueron evaluadas por su composición fitoquímica y potenciales biológicos. Los contenidos fenólicos y polifenólicos totales se determinaron mediante el reactivo de Follin Ciocalteu. El análisis por HPLC se utilizó para la identificación y cuantificación de antioxidantes fenólicos. El contenido total de ácido fenólico fue de 5.95, 5.75 y 5.76 mg/g, mientras que el contenido total de polifenoles fue de 5.19, 6.14 y 6.2 mg/g, respectivamente en *Cotoneaster microphyllus*, *Ficus auriculata* y *Calotropis procera*. La presencia de ácido gálico, vitamina C y quercetina con concentraciones de 0.053, 14.10 y 0.59 mg/100 g, respectivamente, se confirmó en *Cotoneaster microphyllus* mediante HPLC. En *Ficus auriculata*, quercetina y epigallocatequina con concentraciones; 3.79 y 4.64 mg/100 g, respectivamente, mientras que en *Calotropis procera* se confirmaron mediante HPLC los ácidos málico, clorogénico y elágico y los hidratos de catequina y rutina con concentraciones de 0.05, 0.11, 0.04, 1.15 y 0.28 mg/100 g, respectivamente.

KEY WORDS: antibacterial activity, antioxidant activity, *Calotropis procera*, *Cotoneaster microphyllus*, *Ficus auriculata*, phenolic content.

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